

**CONVENTION ON  
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**CONFERENCE OF THE PARTIES TO THE  
CONVENTION ON BIOLOGICAL  
DIVERSITY**

Sixth meeting

The Hague, 7-19 April 2002

Item 21 of the provisional agenda\*

**INTERLINKAGES BETWEEN BIOLOGICAL DIVERSITY AND CLIMATE CHANGE*****Report of the first meeting of the Ad Hoc Technical Expert Group on Biological Diversity and  
Climate Change, Helsinki, 21–25 January 2002***

1. The Ad Hoc Technical Expert Group on biological diversity and climate change held its first meeting at the Finnish Environment Institute from 21 to 25 in Helsinki, Finland, with the financial support of the Government of Finland and the Government of Switzerland.

**ITEM 1. OPENING OF THE MEETING**

2. The representative of the Executive Secretary of the Convention on Biological Diversity (CBD) opened the meeting on Monday 21 January 2002. Mr. Pekka Kangas, General Director from the Finnish Ministry of the Environment, made a welcome address to the Expert Group. Mr. Kangas outlined CBD activities in Finland, focussing on the clearing-house activities and assessment of the implementation of the Convention. He wished the experts a productive and successful meeting.

3. After the members of the Group introduced themselves (see list of participants in Annex 1), the representative of the Executive Secretary of the Convention recalled the mandate of the Group as described in the annotated provisional agenda (UNEP/CBD/AHTEG-BDCC/1/1/Add.1).

4. Dr. Habiba Gitay introduced the technical paper prepared by the Intergovernmental Panel on Climate Change (IPCC) on the inter-linkages between biological diversity and climate change. A member of the Secretariat of the Convention introduced a note by the Executive Secretary of the Convention on Biological Diversity entitled "A review of the impact of climate change on forest biological diversity"

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\* UNEP/CBD/COP/6/1 and Corr.1/Rev.1.

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(UNEP/CBD/AHTEG-BDCC/1/2). A number of other documents were tabled in addition to the documents listed in annex II of the annotated provisional agenda (UNEP/CBD/AHTEG-BDCC/1/1/Add.1).

## **ITEM 2. ORGANIZATIONAL MATTERS**

5. The experts elected two Co-chairs for the meeting: Ms. Outi Berghäll (Finland) and Dr. Robert Watson, the Chairman of IPCC; and a Rapporteur: Dr. Horst Korn (Germany). The Group adopted the provisional agenda prepared by the Executive Secretary (UNEP/CBD/AHTEG-BDCC/1/1) and the organization of work of the meeting contained in annex I to the annotated provisional agenda on the understanding that items 3 and 4 would be discussed simultaneously.

### **ITEM 3: REVIEW OF EXISTING INFORMATION ON THE INTERLINKAGES BETWEEN BIOLOGICAL DIVERSITY AND CLIMATE CHANGE**

*and*

### **ITEM 4: REVIEW OF EXISTING APPROACHES AND TOOLS THAT WOULD FACILITATE APPLICATION OF SCIENTIFIC ADVICE FOR THE INTEGRATION OF BIODIVERSITY CONSIDERATIONS INTO THE IMPLEMENTATION OF MEASURES TO MITIGATE OR ADAPT TO CLIMATE CHANGE**

6. During the meeting, the Group addressed the following substantive issues from its mandate first in plenary and later in two working groups:

(a) Review of existing information on the interlinkages between biological diversity and climate change, and

(b) Review of existing approaches and tools that would facilitate application of scientific advice for integration of biodiversity considerations in the implementation of measures to mitigate or adapt to climate change.

7. In the discussions, the Group took into consideration the relevant articles of the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, the relevant decisions of the respective Conference of the Parties and recommendations of their scientific bodies. An annotated list of some of these decisions is presented in annex I below.

8. The Group decided to prepare two documents:

(a) Assessment report on interlinkages between biological diversity and climate change, building essentially on the IPCC Technical Paper and the review of the impact of climate change on forest biological diversity; and

(b) Advice on the integration of biodiversity considerations into the implementation of the UNFCCC and its Kyoto Protocol.

9. The content of these documents were developed and discussed in the respective working groups chaired by Dr. Braulio Dias (Working Group I) and Dr. Horst Korn (Working Group II). The resulting detailed outlines of the documents are presented in annexes II and III below.

10. With regard to SBSTTA recommendation VII/6, on forest biological diversity, in which the Subsidiary Body invited the Group to consider in its work activities relating to mitigation of the negative impacts of climate change on forest biodiversity (see UNEP/CBD/AHTEG-BDCC/1/1/Add.1, paras. 9 and 10), the Group concluded that its report would provide a basis for the development of those activities.

#### **ITEM 5. SCOPING OF INTER-SESSIONAL WORK AND PREPARATION FOR THE SECOND MEETING**

11. The process for the writing, review and publication of the two documents was discussed and a timetable was agreed as contained in Annex 4. The Group decided that the intersessional work will include

- (a) The finalization of the writing team;
- (b) The preparation of individual chapters under the coordination of the designated members of the ad hoc expert groups;
- (c) The holding of a meeting of lead authors and invited experts;
- (d) An expert and government peer-review process to ensure credibility and ownership from a wider range of stakeholders;
- (e) Integration of reviewer's comments into the second drafts.

12. It was also agreed that at the final meeting of the whole Group, all the experts would serve as reviewers/editors.

13. The Group generally agreed that two meetings would be required for the finalization of each document and noted the financial implications of the additional meetings. In order to keep the cost to the minimum, the possibility of combining meetings would be explored. The Group has requested the Executive Secretary of the Convention on Biological Diversity to approach Governments to raise the required additional funds so that the Group can complete its work.

14. The Group also requested the Executive Secretary to distribute the present to the participants in the UNFCCC/CCD/CBD Liaison Group meeting on 30 January 2002 for their information and consideration in their development of the tripartite synergy.

#### **ITEM 6. OTHER MATTERS**

15. The Group tentatively proposed holding its next meeting early or mid-August 2002 to be able to produce a substantive report for the eighth meeting of SBSTTA.

#### **ITEM 7. ADOPTION OF THE REPORT AND CLOSURE OF THE MEETING**

16. The Group considered a draft report of its meeting presented by one of the Co-Chairs on behalf of the Rapporteur. It requested the Secretariat of the meeting to complete the report by including the

decisions taken in the last plenary and distribute the revised report within the Group for comments and approval in due course.

17. Following the statements made by a number of participants, including the representative of the Executive Secretary, one of the Co-Chairs closed the meeting on Thursday 24 January at 10 p.m.

*Annex 1***TIMETABLE FOR FURTHER ACTIONS UNDER UNFCCC, IPCC AND CBD***UNFCCC*

COP 8	Oct 2002	SBSTA 16	June 2002
COP 9	Oct/Nov 2003	SBSTA 17	Oct 2002
COP 10	Oct/Nov 2004	SBSTA 18	May/June 2003
		SBSTA 19	Oct/Nov 2003
		SBSTA 20	May 2004
		SBSTA 21	Nov 2004

*CBD*

COP 6	April 2002	SBSTTA 8	Nov/Dec 2002
		SBSTTA 9	May-Nov 2003
COP 7	April/May? 2004	SBSTTA 10	2004
		SBSTTA 11	2005

<b>Issue</b>	<b>Submissions from Parties</b>	<b>Proposed workshop</b>	<b>Decisions</b>
<b>UNFCCC</b>			

Issue	Submissions from Parties	Proposed workshop	Decisions
Cooperation with relevant international organisations	15 March 2002 - Views on what actions are required to achieve greater cooperation (UNFCCC, CCD, CBD)	Possible joint workshop prior to SBSTA 18 (and/or to integrate considerations into TOR for other relevant proposed workshops/submissions)	SBSTA 16 to consider "these issues" UNFCCC secretariat to report on work of the joint liaison group - the planned workshop
TOR for CDM projects (Afforestation & Reforestation)	2 February 2002 (EU submission already agreed by WPIEL)	Prior SBSTA 16	SBSTA 16 TOR COP 9 Definitions and Modalities
Investigate possible application of biome specific forest definitions for later commitments periods			COP10
Good practice guidance for LULUCF sector (elaboration by IPCC)			COP 9 Consideration and possible adoption
Issues relating to emissions from forest harvesting and wood products  Third Assessment Report of the IPCC <b>COP DECISION</b>	15 January 2003 - Implications of harvested wood products accounting (inc. approaches and methodologies) Sec. to compile submissions for consideration at SBSTA 18 and prepare technical paper for consideration at SBSTA 19 15 February 2000 Comments on information contained in TAR and possible activities by IPCC in support of UNFCCC (esp. Art. 2) and KP	-  Workshop prior to SBSTA 16 to explore information in TAR	SBSTA 18 will consider SBSTA 19 " SBSTA 20 " SBSTA 21 "  SBSTA 16 will consired

Issue	Submissions from Parties	Proposed workshop	Decisions
UNFCCC work on Art. 4.8 – 4.9 of the convention + related funding			Adaptation activities their guidance + funding considered at COPs, eg. COP8
Methods and tools to evaluate impacts and adaptation		Workshop prior to SBSTA 17 (and/or to integrate issues into TOR for other proposed workshops or submissions relating to adaptation issues)	SBSTA 16: Secretariat's progress report
Development and transfer technologies <b>COP DECISION</b>	15 February 20002 - Technical paper FCCC/TP/2001/2 - Issues identified in annex to doc FCCC/SBSTA/2001/4 Secret. to summarise submissions for consideration at SBSTA 16	Expert workshop prior to SBSTA 16 an technology info and needs assessment	STSTA 16 will consider
Good Practices in Policies and Measures (PAMs)	15 February 2002 - View on TOR of the workshop on PAMs		SBSTA 17 consider PAMs on the basis of information compiled by the Secretariat on PAMs reported by Parties
Article 6 of the Convention: Education, training and public awareness	31 December 2001 - Comments on draft TOR for workshop	Workshop prior to SBSTA 16 to develop work programme	
Activities implemented jointly under the pilot phase	15 February 2002 - Views on experience of pilot phase of AIJ	(Workshop referred to in decision -(CP 7 on AIJ under the pilot phase)	
<b>IPCC</b>			
Develop definitions for degradation and devegetation and methodologies for inventories			COP 9 Consideration and possible adoption

Issue	Submissions from Parties	Proposed workshop	Decisions
Technical Paper on Climate Change and Biodiversity	January 2002 - Review by Experts and Governments by January 2000 April 2002 - Finalization of the report		Made available to SBSTA 16
<b>CBD</b>			
Interlinkages between biodiversity and climate change		First meeting of the Ad Hoc Technical Expert Group on Biodiversity and Climate Change, Helsinki 21-25 January 2002	Progress report at COP 6
		Second meeting of the Ad Hoc Technical Expert Group on Biodiversity and Climate Change, May - August 2002	SBSTTA 8 (Substantive issue: item 5.1)*; SBSTTA 9 (Reports: item 3.1), COP 7
<i>Related issues mentioned in para 3 of COP decision V/21</i>			
Forest biodiversity (SBSTTA VII/ 6)		First meeting of the Ad Hoc Technical Expert Group on Biodiversity and Climate Change, Helsinki 21-25 January 2002	COP 6 (One of the 3 main themes) will adopt a programme of work and decisions on forest biodiversity

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\* If there is a need for additional work, the Group can recommend that SBSTTA considers a preliminary report at its eighth meeting and the final report at its ninth meeting.



Issue	Submissions from Parties	Proposed workshop	Decisions
Cooperation with UNFCCC on dry and sub-humid lands (para 3 of COP decision V/21); and assessment of factors/ processes affecting dry and sub-humid land biodiversity, and global benefits derived from biodiversity (COP decision V/23, para 7) with CCD		First meeting of the Ad Hoc Technical Expert Group on the Biodiversity of Dry and Sub-Humid Lands, mid-March 2002	Progress report at COP 6
Assessment of factors/ processes affecting dry and sub-humid land biodiversity, and global benefits derived from biodiversity (COP decision V/23, para 7) with CCD		Second meeting of the ad hoc technical expert group on dry and sub-humid land biodiversity, September 2002?	SBSTTA 8 (Substantive issue: item 5.4)

Issue	Submissions from Parties	Proposed workshop	Decisions
<p>Cooperation with UNFCCC on coral reefs (para 3 of COP decision V/21): development and implementation of a work plan on coral bleaching in collaboration with UNFCCC and <i>inter alia</i> IPCC (para 4 of COP decision V/3). UNFCCC urged to take all possible actions to reduce the effect of climate change on water temperatures and to address the socio-economic impacts on the countries and communities most affected by coral bleaching (Annex to decision V/3: Priority areas for action on coral bleaching)</p>	<p>Case studies and implementation of response measures (paras 6 and 7 of COP decision V/3)</p>		<p>Progress report at COP 6  SBSTTA 8 (Substantive issue: Item 5.3 Review of the Jakarta mandate)</p>
<p>Cooperation with UNFCCC on incentives (para 3 of COP decision V/21):</p>	<p>Case studies</p>		<p>COP 6</p>
<p><b><i>Other issues</i></b></p>			
<p>Global Plant Conservation Strategy (including targets)</p>		<p>Expert meeting on targets and opportunities, Gran Canaria, 11 to 13 February 2002</p>	<p>COP 6 and progress report at SBSTTA 8 (item 3.4) and COP 7</p>

Issue	Submissions from Parties	Proposed workshop	Decisions
Mountain biodiversity (COP decision IV/16)		Ad Hoc Technical Expert Group on Mountain Biodiversity, July – September 2002	SBSTTA 8 and work programme (main theme) at COP 7
Protected areas (COP decision IV/16)			SBSTTA 9 and work programme (main theme) at COP 7
Technology transfer and cooperation (COP decision IV/16) Ecosystem approach: further elaboration and guidelines for implementation (COP decision V/6)			SBSTTA 9 and one of the main themes of COP 7
Sustainable use: development of practical principles, operational guidelines and associated instruments		Third regional workshop in Ecuador	Progress report at COP 6; Substantive issue at SBSTTA 9; COP 7
Monitoring and indicators; Impact assessment			SBSTTA 9; COP 7

*Annex II***PROPOSED OUTLINE FOR THE REPORT ON THE INTERLINKAGES BETWEEN  
BIOLOGICAL DIVERSITY AND CLIMATE CHANGE***Editors: Habiba GITAY & Braulio DIAS*

<b>CHAPTER TITLE AND MAJOR SUBHEADINGS</b>	<b>KEY SOURCES</b>	<b>CO-LEAD AUTHORS</b>	<b>NUMBER OF PAGES</b>
		* indicates lead § Potential authors to be contacted!	
Executive Summary			2
<b>1. Introduction</b>	CBD, UNFCCC, IPCC, CCD	<b>Habiba GITAY*</b> <b>Braulio DIAS*</b>	2
<ul style="list-style-type: none"> <li>Request for this paper (CBD COP Decision &amp; SBSTTA Recommendation &amp; UNFCCC Decisions)</li> <li>How this paper was prepared (sources, authors, peer-review)</li> <li>Definitions (CBD, UNFCCC, IPCC, CCD)</li> </ul>			
<b>2. Biodiversity and Humans</b>		<b>Peter STRAKA *</b>	5
2.1. Biodiversity Components and Processes	GBA, GBO,	+Sandra Diaz +Braulio Dias +Matt McGlone	
<ul style="list-style-type: none"> <li>Set the conceptual framework</li> <li>CBD objectives and definitions</li> <li>Biodiversity components and levels</li> <li>Drivers and properties of biodiversity</li> <li>Variability/Plasticity of populations (potential and realized niches)</li> <li>Migration</li> <li>Speciation, extinction, extirpation, genetic erosion and contamination (rates and time lags)</li> <li>Functional aspects (theoretical and demonstrated)</li> </ul>			
2.2. Human Uses and Goods & Services of Biodiversity	GBA, GBO,	+Mirna Marin +Bob Watson +Clark Peteru	
<ul style="list-style-type: none"> <li>Values of biodiversity</li> <li>Goods and Services</li> <li>Local communities and indigenous peoples</li> </ul>			
2.3. Human impacts on Biodiversity	GBA, GBO,	+Horst Korn +Ian Thompson +Oswaldo Sala**	

CHAPTER TITLE AND MAJOR SUBHEADINGS	KEY SOURCES	CO-LEAD AUTHORS	NUMBER OF PAGES
<ul style="list-style-type: none"> <li>• Classification of stressors/threats (proximal and underlying factors)</li> <li>• Relative importance of stressors</li> <li>• Interaction of stressors (including synergies)</li> <li>• Current and future scenarios of land use</li> </ul>			
<b>3. Observed and Projected Changes in Climate</b>	Summarize IPCC	<b>BOB WATSON*</b>	2
3.1. Observed Changes (past and XXth Century)	IPCC/TP:3		
<ul style="list-style-type: none"> <li>• Largely follow IPCC/TP outline</li> <li>• Include past climate changes</li> </ul>			
3.2. Projected Changes	IPCC/TP:4		
<ul style="list-style-type: none"> <li>• Largely follow IPCC/TP outline</li> </ul>			
<b>4. Observed Changes in Biodiversity associated with Climate Change</b>		<b>Matt McGLONE *</b>	5
4.1. Past Changes (end of Pleistocene to XIX Century)	New text	Matt McGlone	
<ul style="list-style-type: none"> <li>• Speed of change and time lags</li> <li>• Population fluctuations</li> <li>• Community turnover/disaggregation</li> <li>• Adaptation</li> <li>• Migration</li> <li>• Extinction</li> <li>• Genetic adaptation and speciation</li> </ul>			
4.2. XXth Century Changes (# levels)	IPCC/TP:5 Gillison/TP:4	+Habiba Gitay +Kevin Gaston**	
<ul style="list-style-type: none"> <li>• Largely follow IPCC/TP outline</li> <li>• Consequence of observed changes</li> </ul>			
<b>5. Projected Changes in Biodiversity associated with Climate Change</b>	Summarize IPCC Reports + recent literature	<b>Avelino SUAREZ *</b> <b>Yoshi TSUBAKI *</b>	5
<ul style="list-style-type: none"> <li>• Stress where uncertainties lie (use of qualifiers and models)</li> <li>• Base on IPCC Technical Paper with corrections and complementary information</li> <li>• Use findings in IPCC Reports regarding biodiversity associated with health and food</li> <li>• Summary information for regions (box)</li> <li>• Link specific changes in climate variables with impacts on biodiversity (when possible)</li> <li>• Interactions with different stressors (linear and non-linear)</li> <li>• Differences between interdependent/co-evolved and opportunistic communities (modification</li> </ul>			

CHAPTER TITLE AND MAJOR SUBHEADINGS	KEY SOURCES	CO-LEAD AUTHORS	NUMBER OF PAGES
versus movement) <ul style="list-style-type: none"> <li>• Differentiate between perturbation and normal disturbance</li> <li>• Alien species</li> <li>• Impacts on centers of diversity of domesticated species</li> <li>• Impacts on protected areas</li> <li>• Impacts on areas of high species endemism and richness</li> </ul>			
5.1. Terrestrial & Inland Water Systems (# levels)	IPCC/TP:6+ IPCC Reports +recent literature	Yoshi Tsubaki +Peter Straka	
<ul style="list-style-type: none"> <li>• Potential desertification</li> <li>• Consider soil organisms</li> <li>• Consider literature on forest/savanna boundaries (and constraints to dispersal &amp; establishment)</li> <li>• Interactions with fragmentation</li> </ul>			
5.2. Coastal and Marine Systems (# levels)	IPCC/TP:6+ IPCC Reports +recent literature	Avelino Suarez +Mirna Marin +Muna Faraj +Andrea Volentras	
<ul style="list-style-type: none"> <li>• Impacts on small islands</li> <li>• Highlight impacts on coral reefs</li> <li>• Expand treatment of marine ecosystems</li> </ul>			
5.3. Implications to humans	IPCC Reports +recent literature	+Brett Orlando +Miguel Lovera +Avelino Suarez	
<ul style="list-style-type: none"> <li>• Implications of biodiversity changes for human management objectives (positive and negative)</li> <li>• Implications to human health and food security</li> <li>• Local communities and indigeneous peoples</li> </ul>			
<b>6. Potential Impacts of Biodiversity Change on Climate</b>	IPCC/TP:6.5+ +recent literature	<b>SCHULTZE §</b> +Terry Chapin §	2
<ul style="list-style-type: none"> <li>• Take from IPCC/TP (session 6.5)</li> <li>• Consider local, regional and global effects</li> <li>• Consider impacts on the albedo</li> <li>• Consider impacts on gas fluxes (emissions and sinks)</li> <li>• Consider differences in physiological processes (efficiency and productivity)</li> </ul>			

CHAPTER TITLE AND MAJOR SUBHEADINGS	KEY SOURCES	CO-LEAD AUTHORS	NUMBER OF PAGES
<p><b>7. Potential Role of Biodiversity in Climate Change Mitigation and Adaptation</b></p>	<p>New text, recent literature</p>	<p><b>SANDRA DIAZ *</b> +David Wardle § +David Cooper § +Greg Ruark</p>	<p>2</p>
<ul style="list-style-type: none"> <li>• Use UNFCCC definition</li> <li>• Present theoretical and demonstrated evidences</li> <li>• Stress where uncertainties lie</li> <li>• Biodiversity and ecosystem resistance and resilience to impacts</li> <li>• Biodiversity and efficiency of ecosystem processes</li> <li>• Consider species redundancy and genetic variability</li> <li>• Genetic variability and adaptation</li> <li>• Biodiversity as an ‘insurance’ against the unpredictable and the inevitable</li> <li>• Link to Kyoto Protocol Articles 3.3, 3.4 and 12</li> <li>• Consider agroforestry and landraces</li> <li>• Consider technical, economic and market aspects</li> <li>• Consider the Ecosystem Approach</li> <li>• Costing methodologies</li> </ul>			
<p><b>8. Potential Impacts of Climate Change Mitigation Options to Biodiversity</b></p>	<p>IPCC/TP:7 Summarize + additional literature</p>	<p><b>DAVID COOPER §</b> +Samuel Dieme +Neal Sampson* +Schlamedinger*</p>	<p>4</p>
<ul style="list-style-type: none"> <li>• Use UNFCCC definition (explain Kyoto Protocol language)</li> <li>• Take from IPCC Technical Paper</li> <li>• Consider impacts of policy measures</li> <li>• Consider costs and poverty constraints</li> <li>• Relate to context of other stresses (chapter 2)</li> <li>• Consider all types of Kyoto Protocol projects and LULUCF</li> <li>• Consider policy tools and policy change options</li> <li>• Avoid use of marine carbon sinks</li> <li>• Productivity versus capacity to resist and adapt to change</li> <li>• Risk of introducing alien species (prevent invasives)</li> <li>• Local communities and indigenous peoples</li> </ul>			

CHAPTER TITLE AND MAJOR SUBHEADINGS	KEY SOURCES	CO-LEAD AUTHORS	NUMBER OF PAGES
8.1. Forest issues <ul style="list-style-type: none"> <li>• Include avoided deforestation</li> <li>• Recognize different kinds of tree plantations (including those more biodiversity friendly)</li> <li>• Concern about tree plantation replacing primary forests</li> <li>• Concern about afforestation converting natural grasslands and savannas</li> <li>• Consider opportunities for tree plantations to recover degraded lands</li> <li>• Role of fire in biota conservation and sustainable management</li> </ul>			
8.2. Land Use issues <ul style="list-style-type: none"> <li>• Consider issues in CBD Work Programs (ecosystem-based)</li> <li>• Role of fire in biota conservation and sustainable management</li> <li>• Underground carbon management and biodiversity</li> <li>• Link between coastal biodiversity and inland use change</li> <li>• Rangeland and wetlands management and biodiversity</li> <li>• Agriculture management versus biodiversity</li> <li>• Traditional management practices</li> </ul>			
8.3. Energy issues <ul style="list-style-type: none"> <li>• Biomass – pressure on native habitats</li> <li>• Biomass – biomass plantations versus food crops</li> <li>• Biomass plantations – optimizing for multiple use instead of maximizing for biomass</li> <li>• Biomass plantations – use of native species</li> <li>• Use of animal manure versus nutrient cycles</li> <li>• Flying wildlife and energy lines/grids and wind mills</li> <li>• Tide zone biota and tidal energy generators</li> <li>• Rivers Dam versus inland water biota conservation and sustainable use</li> <li>• Exploitation of peat versus wetland biota</li> <li>• Local communities and indigenous peoples</li> </ul>			
<b>9. Potential Impacts of Climate Change Adaptation Options to Biodiversity</b>	IPCC/TP:8+ Summarize + additional literature	<b>MIRNA MARIN *</b> +Avelino Suarez +Alan Watt	2



CHAPTER TITLE AND MAJOR SUBHEADINGS	KEY SOURCES	CO-LEAD AUTHORS	NUMBER OF PAGES
<ul style="list-style-type: none"> <li>• Consequences of Climate Change potential to permanently change ecosystems and biodiversity</li> <li>• Use UNFCCC definition</li> <li>• Take from IPCC Technical Paper</li> <li>• Consider positive and negative aspects</li> <li>• Identify limitations to adaptation (ex.: coral reef bleaching)</li> <li>• Consider costs and poverty constraints</li> <li>• Identify priority research needs and areas for improved scientific advice</li> <li>• Autonomous versus human-induced adaptation</li> <li>• Consider Sectoral practices</li> </ul>			
9.1. Conservation options			
<ul style="list-style-type: none"> <li>• Consider corridors and protected area systems</li> <li>• Target vulnerable genetic resources for rescue projects for <i>ex situ</i> conservation</li> <li>• In situ conservation</li> </ul>			
9.2. Sustainable Use & Benefit Sharing options			
<ul style="list-style-type: none"> <li>• Consider impacts on agroecosystems (agribusiness and peasant farmers)</li> <li>• Reduce current vulnerability of agroecosystems to climate variability</li> <li>• Pest management practices</li> <li>• Local communities and indigenous peoples</li> </ul>			
<b>10. Uncertainties, Assessment Gaps and Recommendations</b>		Each Chapter to contribute	2
10.1. Uncertainties and Assessment Gaps	IPCC/TP:10+		
<ul style="list-style-type: none"> <li>• List key uncertainties and their implications</li> <li>• List key assessment gaps</li> <li>• List key research needs</li> <li>• Discuss limitations &amp; pros and cons of alternative models, tools and scales</li> </ul>			
10.2. Recommendations	Gillison/TP:6		
<ul style="list-style-type: none"> <li>• List alternative approaches to further assessments</li> <li>• Areas for Research and Assessments</li> <li>• Implications of uncertainties</li> <li>• Implications of Climate Change potential to permanently change ecosystems and biodiversity</li> </ul>			
			33

\*Potential authors to be contacted!

*Annex III*

**PROPOSED OUTLINE FOR THE PAPER ENTITLED “ADVICE ON THE INTEGRATION  
OF BIODIVERSITY CONSIDERATIONS INTO THE UNFCCC AND ITS KYOTO  
PROTOCOL”**

*Editors: Horst Korn and Phocus Ntayombya*

<b>CHAPTER TITLE AND MAIN TOPICS</b>	<b>CO-LEAD AUTHORS</b>	<b>NUMBER OF PAGES</b>
<b>Observations on topics to be included (or added relative to the IPCC/Technical Paper)</b>	* indicates lead **Potential authors to be contacted!	
<b>Executive summary</b>	<b>Horst Korn, Phocus Ntayombya</b>	5
<b>1. Introduction</b>	<b>Brett Orlando*, Horst Korn</b>	3-5
<ul style="list-style-type: none"> <li>- Origin of the paper and why and for whom was it prepared</li> <li>- Who prepared it and how</li> <li>- Link to the first paper</li> <li>- Relevant CBD decisions (those mentioning climate change - e.g. climate change, forests, incentives, coastal and marine)</li> <li>- Decision (and principles) on the ecosystem approach</li> <li>- Relevant FCCC articles and KP decisions (FCCC articles 2, 4.1(f), KP provisions on LULUCF, adaptation, etc.) and their possible evolution; who are the major actors (governments and the private sector - the primary role of the market and the private sector in climate change mitigation activities)</li> <li>- Other relevant CBD decisions (those not mentioning climate change but relevant to providing advice - e.g. drylands, sustainable use, agro-biodiversity, etc.)</li> </ul>		
<b>2. Implications of the first assessment for climate change mitigation and adaptation policies and projects</b>  <b>(This section is supposed to link paper 1 to this document and to summarize their mayor conclusions)</b>	<b>Kanta Kumari*, Mario Ramos, Braulio Dias, Habiba Gitay</b>	5-7

CHAPTER TITLE AND MAIN TOPICS	CO-LEAD AUTHORS	NUMBER OF PAGES
<p>Main findings and uncertainties related to climate change mitigation</p> <ul style="list-style-type: none"> <li>- E.g: LULUCF projects that can decrease net GHG emissions can have either beneficial or adverse environmental or social effects, hence approaches/tools are needed to assess the synergies and trade-offs of different designs</li> <li>- e.g. afforestation and reforestation – implications for water resources; use native vegetation, not exotics; imbed artificial wetlands for migratory birds; Forest and agricultural land management; avoided Deforestation - minimize leakage – alternative income streams; Fossil fuel substitution through biofuel plantations – (minimize impacts on native vegetation and water resources)</li> <li>- Describe the key features of mitigation policies and projects which take biodiversity into account (“if, then” constructs)</li> <li>- Forests, e.g. optimise carbon sequestration, while doing no harm to biodiversity or even increasing biodiversity</li> <li>- Other ecosystems</li> <li>- Energy activities</li> <li>- case studies and lessons learnt</li> </ul> <p>Main findings and uncertainties related to climate change adaptation</p> <ul style="list-style-type: none"> <li>- Describe the key features of adaptation policies and projects which take biodiversity into account (“if, then” constructs)</li> <li>- Forests</li> <li>- Other ecosystems (e.g. coastal and marine)</li> <li>- Energy activities</li> </ul>		
<p><b>3. Operational approaches to integrate biodiversity considerations in climate change mitigation and adaptation policies and projects</b></p>	<p><b>Gregory Ruark*, Ian Thompson, Sem Shikongo</b></p> <p><b>Other potential authors to be contacted</b></p> <ul style="list-style-type: none"> <li>- A. Gillison,</li> <li>- marine/coastal Specialist to be contacted by Andrea</li> </ul>	15

CHAPTER TITLE AND MAIN TOPICS	CO-LEAD AUTHORS	NUMBER OF PAGES
	<b>Volentras (SPREP),</b> <b>- IUCN/CEM,</b> <b>- FAO,</b> <b>- Saleemul Huq/IIED</b> <b>- CGIAR (to provide case studies)</b> <b>- Ajay Mathur and/ or Charles Feinstein (WB)</b>	
<ul style="list-style-type: none"> <li>- Principles of the ecosystem approach:</li> <li>- no single way to implement ecosystem approach (CBD decision V/6 para.5)</li> <li>- scale is defined appropriately: national, landscape, project</li> <li>- management should be decentralized to the lowest possible level</li> <li>- management decisions taken in consultation with stakeholders</li> <li>- encourages cross-sectoral decision-making</li> <li>- adaptive management</li> <li>- long-term view</li> <li>- Mitigation (using the ecosystem approach)</li> </ul> <p>Scale set of guidelines: national and regional policies as well as landscape and site contexts</p> <ul style="list-style-type: none"> <li>- Forests, e.g. non-prescriptive outline that describes the spectrum of options for reforestation – monoculture to mixed species - all with varying degrees of biodiversity richness and ecological function; note different ways of reforestation – forest reclamation, rehabilitation and restoration -- the landscape approach; (apply appropriate methods, drawing upon the ecosystem approach including all strata); relationship with private sector</li> <li>- Other ecosystems</li> <li>- Energy (e.g. hydro-power, wind, solar)</li> <li>- case studies and lessons learnt</li> <li>- Adaptation (ecosystem approach)</li> <li>- Forests and other terrestrial ecosystems (e.g. integrated land and water management; conservation of biodiversity at all levels)</li> <li>- Coastal and marine</li> <li>- Energy (e.g. renewable energy including hydropower)</li> </ul> <p>Issues raised in general discussion which may be taken into account:</p> <ul style="list-style-type: none"> <li>- already ongoing activities (Proposal: could these be taken “on board” by case studies? H. Korn)</li> <li>- transboundary issues</li> <li>- national reports may contain information on “frameworks”</li> </ul>		

CHAPTER TITLE AND MAIN TOPICS	CO-LEAD AUTHORS	NUMBER OF PAGES
<p><b>4. Tools for making, evaluating and monitoring decisions</b></p>	<p><b>Allan Watt*</b> (also <b>Criteria &amp; Indicators</b>),</p> <p><b><u>Indigenous Peoples</u></b> Clark Peteru,</p> <p><b>MIGUEL LOVERA</b> (as Authors or to look for other appropriate persons)</p> <p><b>Other potential authors to be contacted:</b></p> <p><b><u>Environmental Assessments:</u></b> - R. Goodland/WB, - IAIA, - EEA</p> <p>Decision making framework - <b>Sam Fenkhauser (EBRD)/</b> - <b>David Pearce</b> <b>IPs: Clark Peteru/Miguel</b> <b><u>Case studies:</u></b> <b>WB,</b> <b>UNDP</b></p>	<p>15</p>

CHAPTER TITLE AND MAIN TOPICS	CO-LEAD AUTHORS	NUMBER OF PAGES
<ul style="list-style-type: none"> <li>- Environmental assessments (e.g. project, strategic - sectoral and regional - environmental and social impact assessments and safeguard policies, project life-cycle analysis)</li> <li>- Decision making/support frameworks (e.g. conflict management, cost-benefit, cost-effectiveness, adaptive management)</li> <li>- Criteria and indicators (biological and social) system for policies and projects to evaluate and monitor the effects of climate change mitigation and adaptation actions on biodiversity:</li> <li>- indicators will change over time</li> <li>- define targets for biodiversity maintenance</li> <li>- Include, if appropriate, lessons learnt:</li> <li>- positive case studies</li> <li>- lessons learnt from failure from an ensemble of projects and policies</li> <li>- institutional needs for successful project or policy implementation)</li> <li>- tools for risk assessment/risk management</li> <li>- capacity-building (assessment and implementation)</li> </ul> <p>Hint from general discussion in Plenary:</p> <p>There may be information on capacity building in national reports</p>		
<p><b>5. Recommendations (with options) for action</b></p> <p><b>(This section was not discussed thoroughly since it was felt that the outcome of it depends on the findings of paper 1 and the above sections of paper 2. So far this is just a brainstorming list!)</b></p>	<p><b>All: Task for 2<sup>nd</sup> Meeting</b></p>	<p>3-5</p>

CHAPTER TITLE AND MAIN TOPICS	CO-LEAD AUTHORS	NUMBER OF PAGES
<ul style="list-style-type: none"> <li>- Note to authors: Directed to multiple sectors (e.g. forests, agriculture, energy, etc.) concerning relevant stakeholders (e.g. Parties, international institutions, the private sector, local communities and indigenous peoples)</li> <li>- Priority setting (e.g. conserve forests, reforest, then afforest)</li> <li>- Mitigation options</li> <li>- Adaptation options</li> <li>- 10 recommendations in total; 5 for mitigation; 5 for adaptation; possible cross-cutting recommendations</li> <li>- 3 levels: policy, programme and project</li> <li>- Capacity building, create institutional framework</li> <li>- (Mitigation options should support adaptation)</li> <li>- Areas of future work (collaboration with UNFCCC and/or IPCC)</li> <li>- Consider mainstreaming</li> </ul>		
	<b>TOTAL</b>	50
<p>Appendices: Text of relevant CBD decisions and UNFCCC decisions (incl. Kyoto Protocol and the Marrakech Accords)</p>		

*Annex IV*

**PROCEDURES FOR WRITING AND REVIEW - GOAL - PRODUCT BY THE EIGHTH MEETING OF SBSTTA**

- “Select“ the writing teams (mid Feb 2002)
- Prepare individual chapters (early July 2002)
- Develop first draft of both products - including Executive Summary (1week meeting) early August 2002
- Review of first drafts (6 weeks; expert/stakeholder/government; combination of www distribution, distribution to Nat. focal points and some specific hard copies) late August / mid October 2002
- Collate and distribute comments by October 2002
- Develop final drafts with full consideration to the review comments (Ad-hoc group members as ed. board. 1-week meeting) late October
- Edited report for distribution by early November 2002 (i.e., prior to SBSTTA 8)
- Key issue - do we go to SBSTTA for final approval of the executive summary?
  - If we decide the Roster of Experts is the final approval of the document and the executive summary - publication of the document mid January 2003 (Commercial vs. in-house)
  - If the SBSTTA approves the executive summary, then review/approval at SBSTTA 8 followed by publication March 2003

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